

Appl. No. 10/713,321
Amdt. dated September 14, 2006
Reply to Office Action of June 14, 2006

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REMARKS/ARGUMENTS

Claims 1-27 are pending in the present application.

This Amendment is in response to the Office Action mailed on June 14, 2006. In the Office Action, the Examiner rejected claims 1-4, 7, 9-13, 16, 18-22, 25, and 27 under 35 U.S.C. §102(b); and claims 5-6, 8, 14-15, 17, 23-24, and 26 under 35 U.S.C. §103(a). Applicant has amended claims 1-4, 7-13, 16-22, and 25-27. Reconsideration in light of the amendments and remarks made herein is respectfully requested.

Claim Objections

The Examiner objects to claims 1 and 4 based on minor informalities. Applicant has amended claims 1 and 4 as suggested. Applicant respectfully requests that the Examiner withdraw the objection to claims 1 and 4.

Rejection Under 35 U.S.C. § 102

In the Office Action, the Examiner rejected claims 1-4, 7, 9-13, 16, 18-22, 25, and 27 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,057,839 issued to Advani *et al.* ("Advani"). Applicant respectfully traverses the rejection and submits that the Examiner has not met the burden of establishing a prima facie case of anticipation.

Advani discloses a visualization tool for graphically displaying trace data produced by a parallel processing computer. A parallel display in a window depicts cumulative parallelism of multiple processors operating in a parallel computer (Advani, col. 6, lines 25-28). The display shows the trace data or the data structures representing the events in the event history storage (Advani, col. 7, lines 13-16; lines 42-44).

Advani does not disclose, either expressly or inherently, at least one of (1) displaying on a display device a first graphic type indicative of a processor wherein one of said first graphic type is displayed for each one of at least two processors in a multiprocessor system; and (2) displaying on said display device a second graphic type indicative of an application group wherein one of said second graphic type is displayed for each one of at least two application groups and wherein at least one graphic type is displayed for each of said at least two application groups associated with each of said at least two processors.

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Advani merely discloses a display of cumulative parallelism of multiple processors (Advani, col. 6, lines 25-28), not a first graphic type displayed for each one of at least two processors. A cumulative display does not explicitly separate processors in a multiprocessor system. Advani explicitly teaches to show the total CPU utilization (Advani, col. 5, lines 55-60), not for each one of at least two processors. In addition, Advani merely discloses displaying the trace data in the event history storage (Advani, col. 7, lines 13-16; lines 42-44), not a second graphic type indicative of an application. The trace data are a time-ordered series of recorded indicia representing changes to the information and/or control state of the parallel processing computer (Advani, col. 1, lines 27-30). These changes are related to the parallel processing computer and are not relevant to the application or application group.

The Examiner contends that the first graphic type is equivalent to a window (Office Action, page 3, lines 5-6). Applicant respectfully disagrees. A window merely includes a title bar, button, scroll bars, etc. It is not indicative of a processor. The Examiner further contends that the application group is equivalent to processor activity (Office Action, page 3, lines 7-9). Applicant respectfully disagrees. An application group is a set of applications, as well as a number of associated threads, programs, etc., that are used by a single "application" (Specification, paragraph [0016]) which may run on a processor. On the other hand, a processor activity is an activity that is performed by a processor.

Regarding claim 2, since Advani does not disclose a second graphic type indicative of an application group, Advani does not disclose the second graphic type comprising a color indicative of the application group.

Regarding claims 3 and 4, as discussed above, Advani only discloses the cumulative parallelism of all processors or the total CPU utilization. Therefore, Advani does not disclose a graphic indicator indicating a group of at least two processors, or a processor utilization associated with each of the at least two processors.

To anticipate a claim, the reference must teach every element of the claim. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Vergezaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the...claim." Richardson v. Suzuki Motor

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Co., 868 F.2d 1226, 1236, 9 USPQ 2d 1913, 1920 (Fed. Cir. 1989). Since the Examiner failed to show that Advani teaches or discloses any one of the above elements, the rejection under 35 U.S.C. §102 is improper.

Therefore, Applicant submits that independent claims 1, 10, and 19 and their respective dependent claims are distinguishable over the cited prior art references. Accordingly, Applicant respectfully requests the rejection under 35 U.S.C. §102(b) be withdrawn.

Rejection Under 35 U.S.C. § 103

In the Office Action, the Examiner rejected claims 5-6, 14-15, and 23-24 under 35 U.S.C. §103(a) as being unpatentable over Advani as applied to claims 1 and 4 above, and further in view of U.S. Patent No. 5,819,028 issued to Manghirmalani et al. ("Manghirmalani"); claims 8, 17, and 26 under 35 U.S.C. §103(a) as being unpatentable over Advani as applied to claim 1 above, and further in view of U.S. Patent No. 6,456,306 issued to Chin et al. ("Chin"). Applicant respectfully traverses the rejection and submits that the Examiner has not met the burden of establishing a *prima facie* case of obviousness.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *MPEP §2143, p. 2100-129 (8th Ed., Rev. 2, May 2004)*. Applicant respectfully submits that there is no suggestion or motivation to combine their teachings, and thus no *prima facie* case of obviousness has been established.

1. Claims 5-6, 14-15, and 23-24:

Advani discloses a visualization tool for graphically displaying trace data produced by a parallel processing computer as discussed above.

Manghirmalani discloses a method and apparatus for determining the health of a network. Health information can be portrayed in the forms of a dial meter, graph meter, or digital meter. The dial meter is similar to that of an analog speedometer or fuel gauge in a car (Manghirmalani, col. 8, lines 15-19).

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Advani and Manghirmalani, taken alone or in any combination, do not disclose, suggest, or render obvious, at least one of (1) displaying on a display device a first graphic type indicative of a processor wherein one of said first graphic type is displayed for each one of at least two processors in a multiprocessor system; (2) displaying on said display device a second graphic type indicative of an application group wherein one of said second graphic type is displayed for each one of at least two application groups and wherein at least one graphic type is displayed for each of said at least two application groups associated with each of said at least two processors; (3) a graphic indicator indicating a group of said at least two processors wherein said group is indicative of a processor clustering; (4) a graphic indicator of processor utilization associated with each of said at least two processors, (5) a gauge having gauge bands reflecting ranges of processor utilization, as recited in claims 5-6, 14-15, and 23-24.

As discussed above in the §102 rejection, Advani does not disclose elements (1) through (4). Accordingly, a combination of Advani with any other references in rejecting claims 5-6, 14-15, and 23-24 is improper.

Furthermore, Manghirmalani discloses using a dial meter to display health information of a network, not a processor utilization. The health information indicates whether the network is in repair and/or upgrade or in good health. It does not show the processor utilization. Moreover, Manghirmalani does not disclose or suggest at least two processors in multiprocessor systems. Manghirmalani only discloses a network. A network may be connected to multiple processors but it does not operate in the context of a multiprocessor system.

2. Claims 8, 17, and 26:

Advani discloses a visualization tool for graphically displaying trace data produced by a parallel processing computer as discussed above.

Chin discloses a method and apparatus for displaying health status of network devices. A window uses colored network device icons and status panes to report the current operational state of the devices in the network (Chin, col. 6, lines 47-52).

Advani and Chin, taken alone or in any combination, do not disclose, suggest, or render obvious, at least one of (1) displaying on a display device a first graphic type indicative of a processor wherein one of said first graphic type is displayed for each one of at least two

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processors in a multiprocessor system; (2) displaying on said display device a second graphic type indicative of an application group wherein one of said second graphic type is displayed for each one of at least two application groups and wherein at least one graphic type is displayed for each of said at least two application groups associated with each of said at least two processors; and (3) blocks associated with the graphic indicator indicating an application group assigned to a processor, as recited in claims 8, 17, and 26.

As discussed above, Advani does not disclose elements (1) through (2). Accordingly, a combination of Advani with any other references in rejecting claims 8, 17, and 26 is improper.

Furthermore, Chin merely discloses using colored icons to report the current operational state of the devices, not to indicate an application assigned to a processor. A current operational state of the devices does not involve an application assigned to a processor in a multiprocessor system.

In summary, there is no motivation to combine Advani, Manghirmalani, and Chin because none of them addresses the problem of displaying processor usage in a multiprocessor system. There is no teaching or suggestion that a first graphic type indicative of a processor or a second graphic type indicative of an application group is present. Advani, read as a whole, does not suggest the desirability of displaying a graphic type of each of the application groups. For the above reasons, the rejection under 35 U.S.C. §103(a) is improperly made.

When applying 35 U.S.C. §103, the following tenets of patent law must be adhered to: (A) The claimed invention must be considered as a whole; (B) The references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination; (C) The references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention; and (D) Reasonable expectation of success is the standard with which obviousness is determined. Hodosh v. Block Drug Col. Inc., 786 F.2d 1136, 1143 n.5, 229 USPQ 182, 187 n.5 (Fed. Cir. 1986). "When determining the patentability of a claimed invention which combined two known elements, 'the question is whether there is something in the prior art as a whole suggest the desirability, and thus the obviousness, of making the combination.'" In re Beattie, 974 F.2d 1309, 1312 (Fed. Cir. 1992), 24 USPQ2d 1040; Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co., 730 F.2d 1452, 1462, 221 USPQ (BNA) 481, 488 (Fed. Cir. 1984). To defeat patentability based on obviousness, the

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suggestion to make the new product having the claimed characteristics must come from the prior art, not from the hindsight knowledge of the invention. Interconnect Planning Corp. v. Feil, 744 F.2d 1132, 1143, 227 USPQ (BNA) 543, 551 (Fed. Cir. 1985). To prevent the use of hindsight based on the invention to defeat patentability of the invention, this court requires the Examiner to show a motivation to combine the references that create the case of obviousness. In other words, the Examiner must show reasons that a skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the prior elements from the cited prior references for combination in the manner claimed. In re Rouffet, 149 F.3d 1350 (Fed. Cir. 1996), 47 USPQ 2d (BNA) 1453. "To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or implicitly suggest the claimed invention or the Examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." Ex parte Clapp, 227 USPQ 972, 973. (Bd. Pat. App. & Inter. 1985). The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. In re Mills, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). Furthermore, although a prior art device "may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so." In re Mills 916 F.2d at 682, 16 USPQ2d at 1432; In re Fritch, 972 F.2d 1260 (Fed. Cir. 1992), 23 USPQ2d 1780.

In the present invention, the cited references do not expressly or implicitly suggest any of the elements in the rejected claims. In addition, the Examiner failed to present a convincing line of reasoning as to why a combination of Advani, Manghirmalani, and Chin is an obvious application of displaying processor usage in a multiprocessor system.

Therefore, Applicant believes that independent claims 1, 10, and 19 and their respective dependent claims are distinguishable over the cited prior art references. Accordingly, Applicant respectfully requests the rejections under 35 U.S.C. §103(a) be withdrawn.

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Conclusion

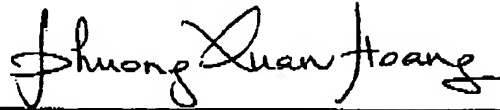
Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

UNISYS CORPORATION

Dated: September 14, 2006

By



Phuong-Quan Hoang
Reg. No. 41,839
Tel.: 949-380-5643 (Pacific Coast)
Fax: 949-380-5254

Unisys Corporation
25725 Jeronimo Road, MS 400
Mission Viejo, CA 92691

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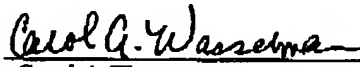
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